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ПОЛЬЩА ТА УКРАЇНА У СВІТЛІ МОДЕЛЛІ НАРОДЖУВАНОСТІ ЗА ПЕРІОД ПАРАДИША

У статті відображено питання дослідження, які в теперішній час мають надзвичайно важливе значення в методології аналізу народжуваності за період. Когортний аналіз розкриває великі можливості для опису процесу людського відтворення. Оскільки період аналізу не достатньо великий, було застосовано однакові методи дослідження для обох країн. Багато років тому один з нас запропонував розкладання періоду сумарного коефіцієнта народжуваності для розрахунку періоду "теоретичних" інтервалів між народженнями. За допомогою комбінації двох систем демографічного аналізу (імовірності народження дитини певної черговості і таблиць вибуття – поповнення) ми розклали "класичний" сумарний коефіцієнт народжуваності (СКН) для дітей останньої та не останніх черг народження в аналізі за період.

Ключові слова: аналіз народжуваності за період, період інтервалу між народженнями, розкладання сумарного коефіцієнта народжуваності за черговістю народжень останніх та не останніх черг.

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ПОЛЬША И УКРАИНА В СВЕТЕ МОДЕЛИ РОЖДАЕМОСТИ ЗА ПЕРИОД ПАРАДИША

В статье отражены вопросы исследования, которые в настоящее время имеют чрезвычайно важное значение в методологии анализа рождаемости за период. Когортный анализ раскрывает большие возможности для описания процесса человеческого воспроизводства. Поскольку период анализа недостаточно большой, было применено одинаковые методы исследования для обеих стран. Много лет назад один из нас предложил разложение периода суммарного коэффициента рождаемости для расчета периода "теоретических" интервалов между рождениями. С помощью комбинации двух систем демографического анализа (вероятности рождения ребенка определенного очередности и таблиц выбытия – пополнение) мы разложили "классический" суммарный коэффициент рождаемости (СКН) для детей последней и не последних очередей рождения в анализе за период.

Ключевые слова: анализ рождаемости за период, период интервала между рождениями, разложение суммарного коэффициента рождаемости по очередности рождений последних и не последних очередей.

Bulletin of Taras Shevchenko National University of Kyiv. Economics, 2015; 4 (169): 46-52

УДК: 314.145:311:33

JEL: C 43, I 31

DOI: dx.doi.org/ 10.17721/1728-2667.2015/169-4/8

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THE SYSTEM OF STATISTICAL OBJECTIVE AND SUBJECTIVE INDICATORS OF MEASURING QUALITY OF LIFE

This article examines approaches to defining and measuring quality of life. Each approach to measuring the quality of life contains information that is not contained in the other measures. It describes the economic, subjective and social indicators. The strengths and weaknesses of those indicators are also analyzed.

Keywords: quality of life index; objective indicators; subjective indicators; quality of life; measuring quality of life.

Introduction. The basic responsibility of any government is to create better conditions of life for its citizens. Nowadays measuring quality of life is one of the most actual problems not solely in Ukraine but in countries all over the world. It is interesting to examine quality of life and measuring of it, especially taking to account the global financial crisis and numerous effects of it. Today leading Ukrainian scientists study a problem of measuring quality of life with the assistance of United Nations Development Program (UNDP) in Ukraine. Quality of life refers to the overall welfare within a certain society, focused on enabling each member an opportunity of accomplishing its objectives.

Quality of life refers to not solely indicators of material standard, but also to various subjective factors that influence human lives. It is very often determined using descriptive measures like satisfaction and happiness. Most researchers agree that the use of both objective and subjective measures provides the best overall picture. But the main problem is to select the right indicators both objective and subjective.

The object of the current research is subjective and objective indicators of quality of life.

The research aim of the paper is to define and analyze the subjective and objective indicators of quality of life, which necessitated the solution of the following *research tasks*: research existing approaches to measuring quality of life; analyze subjective and objective indicators of quality of

life; investigate the possibilities of using both subjective and objective indicators that have the greatest impact on the quality of life.

Discussion of quality of life (QOL) dates back to Plato and Aristotle [15]. Early efforts to define and measure QOL took either an economic or objective social indicators approach. But studies in the 1970s showed that objective measures of life conditions accounted for only a modest proportion of individuals' subjectively reported QOL [9]. QOL is the subject of academic debate in economics, particularly in the related field of happiness studies, a research area shared with psychologists and sociologists. Most of this literature considers the effect of medical interventions on the QOL, or subjective well-being of individuals or groups of individuals with shared characteristics. Quality of life has been recognized as an important construct in a number of social and medical sciences such as sociology, political science, economics, psychology, philosophy, marketing, environmental sciences, medicine, and others. However, each academic field has developed somewhat different approaches to investigate the construct of quality of life. Researchers have called for more sophisticated and philosophical research methods in the field that include both qualitative and quantitative designs.

Some components of quality of life assessment explored in the works of such scientists as Becker R.,

Campbell A., Diener E., Zapf W., Noll H. and etc. But the main debates connected with: definition of quality of life, objective versus subjective approaches; whether QOL is a uni- or multi-dimensional concept; the role of values; the place of self-evaluation; the cultural context; and QOL as a relative or absolute concept. So, each academic field has developed somewhat different approaches to investigate the construct of quality of life. In each case, the construct is conceived and measured differently. Erikson [14], interested in the standard of living in a society, defines quality of life in terms of control over resources. Lane [17] understood high quality of life in terms of subjective well-being, human development, and justice. Moreover, Lane in his paper defined that quality of life not only as a "state", but also as a "process" that includes subjective and objective elements. The World Health Organization, concerned with health related quality of life, defined QOL as "an individual's perception of their position in life in the context of the culture and value system in which they live and in relations to their goals, expectations, standards, and concerns" [22, p. 551]. Consequently, there is no single, agreed-upon definition of the construct or a single, widely accepted measurement instrument to assess quality of life exist in contemporary academic research [18]. Despite various definitions and inconsistencies, the majority of scholars at least seem to agree that the construct of quality of life is multidimensional, and has subjective as well as objective components [20].

Methodology. Lane defined quality of life as the relation between a set of objective conditions and two subjective or person-based elements. The subjective elements are comprised of a sense of subjective well-being and personal development, and learning and growth. This approach emphasizes the active role of the person and highlights the importance of integrating personality concepts such as skills or capacities, beliefs and knowledge, emotions and evaluations, and states of being into the measurement of quality of life. Lane argues that a person – in order to convert available welfare into well-being – needs certain cognitive and personal abilities, a requirement which has not been taken into account in previous quality of life approaches.

Social indicators are societal measures that reflect people's objective circumstances in a given cultural or geographical unit. They are mainly based on objective, quantitative statistics (e.g. infant mortality, life expectancy, doctors per capita, etc.) rather than on individuals' subjective perceptions of their social environment.

Many "subjective" measures are widely used by policy-makers and collected by several National statistical offices because they offer information that objective measures cannot include businesses' and consumers' confidence, self-assessed health status and the fear of crime. How people value their own life represents one way to assess subjective well-being. Studies based on life-evaluation measures have gone in depth in identifying the main patterns of these measures, both across countries and over time. Life-evaluation can be captured through a variety of survey questions: from simple questions which ask people to state how happy or satisfied they are with their life, to questions that ask respondents to rank life over a ladder-of-life-scale.

Subjective well-being can be assessed through measures of people's hedonic experiences (e.g. experiences of pain, depression, joy and purpose). While these measures have traditionally been collected through small-scale experiments, approaches have been developed more recently to collect suitable information through large-scale household surveys (where people are

asked to report about their hedonic experiences of the previous day) and through diaries (where people report their feelings on various types of activities they performed on the previous day).

The measurement of subjective well-being is often assumed to be restricted to measuring "happiness". In fact, subjective well-being covers a wider range of concepts than just happiness. For the purposes of these guidelines, a relatively broad definition of subjective well-being is used. In particular, subjective well-being is taken to be: good mental states, including all of the various evaluations, positive and negative, that people make of their lives and the affective reactions of people to their experiences. This definition is intended to be inclusive, encompassing the full range of different aspects of subjective well-being commonly identified by research in this field. It includes first and foremost measures of how people experience and evaluate their life as a whole.

However, the guidelines also provide advice on measuring people's experience and evaluations of particular domains of life, such as satisfaction with their financial status or satisfaction with their health status, as well as measures of "meaningfulness" or "purpose" in life (often described as "eudaimonic" aspects of subjective well-being). This definition of subjective well-being hence encompasses three elements:

1. Life evaluation – a reflective assessment on a person's life or some specific aspect of it.
2. Affect – a person's feelings or emotional states, typically measured with reference to a particular point in time.
3. Eudaimonia – a sense of meaning and purpose in life, or good psychological functioning. The main points with respect to the quality of subjective well-being measures are summarised under the headings relevance, reliability, and validity.
4. Also, it is possible to present some general guidelines on the most important information that should be collected alongside measures of subjective well-being:
5. Demographics: Age, gender, marital status (legal marital status and social marital status), family type, number of children, household size, and geographic information.
6. Material conditions: Household income, consumption, deprivation, housing quality.
7. Quality of life: Employment status, health status, work/life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security.

Psychological measures: aspirations and expectations about the future, which form part of the frame of reference that individuals use when evaluating their lives or reporting their feelings.

Based on the descriptive analysis of indicators to measure quality of life, we suggest using both objective and subjective indicators in developing methods of evaluating the quality of life. Such approach provides us a complete picture of the quality of life, additional information and alternative view about the quality of life of an individual, about the societal quality and a truly comprehensive assessment of quality of life.

In addition, we consider it necessary to use the method comparisons to measure quality of life and to analyze the indicators used to assess quality of life. Method comparisons comprise:

- a description of the indicator, and background information on the context and uses. Such information often provides an insight into areas and issues that impact on the comparability of the indicators, an indication to users on how data may be used, limitations to the use of the data;

- relevant data specifications and definitions and other information on the indicators.

Results. Quality of life is "the most widely recognised and the most frequently used framework for analysing the welfare development of a society" [2, p. 8]. Zapf [24, p. 6] states that: "It is a multidimensional concept which encompasses both material and immaterial, objective conditions and subjective, individual and collective aspects of welfare". Quality of life is conceptualized mainly as individual welfare or welfare of households. "Components of this individual welfare are not only good objective living conditions, but also subjective wellbeing" [2]. There are three major philosophical approaches to determining the quality of life [3]. The first approach describes characteristics of the good life that are dictated by normative ideals based on a religious, philosophical, or other systems. The second approach to defining the good life is based on the satisfaction of preferences. Within the constraints of the resources they possess, the assumption is that people will select those things that will most enhance their quality of life. Thus, in this tradition the definition of the quality of life of a society is based on whether the citizens can obtain the things they desire. People select the best quality of life for themselves that is commensurate with their resources and their individual desires. This approach to utility or the good life based on people's choices undergirds much of modern economic thinking. The third definition of quality of life is in terms of the experience of individuals. If a person experiences her life as good and desirable, it is assumed to be so. In this approach, factors such as feelings of joy, pleasure, contentment, and life satisfaction are paramount. Obviously, this approach to defining the quality of life is most associated with the subjective well-being tradition in the behavioral sciences.

These three approaches to defining quality of life have often competed in political and philosophical thought. Policy makers currently weight choice utility most heavily, however, because of the preeminence they grant to economic considerations. Nevertheless, there are limitations to a definition of quality of life that rests solely on economics and people's ability to obtain the marketplace goods and services that they choose. In the first place, economic progress may not guarantee other important factors such as an absence of

crime. In some cases, economic progress might even be thought to be inversely correlated with certain facets of quality of life such as leisure time or a healthy environment. In the second place, people's choices may not make them happy, or may be inconsistent with normative ideals. In other words, people might want things that are not good or that will not make them happy.

Finally, the analyses of a good society only in terms of market factors clearly deemphasizes important elements that influence the quality of life such as love, self-development, and possessing meaning in life. Thus, researchers have increasingly turned to additional approaches to defining and measuring the quality of life.

During the last few decades, two new scientific approaches to measuring quality of life have been initiated – "objective" or social indicators, and the measurement of subjective well-being (SWB) or subjective indicators. Land [16] provides a history of the social indicators and subjective well-being movements in the social sciences. The social indicators movement focuses its attention on measuring. The growth of the social indicators movement coincided with the questioning of economic growth in terms of whether more was always better (Land, 1996). Subjective well-being research, in contrast, is concerned with individuals' subjective experience of their lives. The underlying assumption is that well-being can be defined by people's conscious experiences.

Zapf [24] offers a very helpful taxonomy of welfare concepts, which combines objective and subjective measures at the individual and societal level (see Table. 1). Using this taxonomy, three main approaches to welfare measurement – based on the level (individual vs. societal) and type of measurement (objective vs. subjective) used – can be identified. The first rely on objective indicators for welfare measurement like the Scandinavian level of approach to survey research [12]. The second, known as the American quality of life approach, bases welfare predominantly on subjective indicators with wellbeing of individuals as final outcome of conditions and processes [4; 5]. The third combines objective and subjective indicators; examples of which are the German welfare approach, Allardt's [1] "having, loving and being" trio approach towards welfare, and work carried out in New Zealand on material wellbeing.

Table 1. Taxonomy of welfare concepts

	Objective indicators	Subjective indicators
Individual level	Objective living conditions (e.g. income)	Subjective well-being (e.g. income satisfaction)
Societal level	Quality of society (e.g. income distribution)	Perceived quality of society (e.g. conflict between rich and poor)

Source: own case study on the basis of [24].

The Scandinavian level of living approach follows the tradition set by Jan Drewnowski [10], who conceptualised welfare in terms of objective needs, and Richard Titmuss' [21] studies of the British welfare state in which level of living was defined as person's command over resources. The theoretical assumption of this objectivist approach is that there are so-called basic needs and that satisfying these basic needs determines individual welfare [24]. "Resources are defined in terms of money, property, knowledge, psychic and physical energy, social relations, security and so on" [13, p. 189].

Although American researchers also use objective indicators when assessing quality of life, there is a longstanding tradition to analyse subjective well-being, which is concerned with individual's subjective experience

of their lives. The underlying assumption is that well-being can be defined by people's conscious experiences – in terms of hedonic feelings or cognitive satisfactions. The field is built on the presumption that to understand the individuals' experiential quality of well-being, it is appropriate to directly examine how a person feels about life in the context of his or her own standards [9].

There is today, however, much more consensus that objective living conditions and subjective evaluations are actually just two sides of one coin, subjective evaluations of personal life circumstances can relate to life as a whole as well as to different life domains, like work or income. This underlines the complementary nature of the two approaches, objective welfare measurement, and subjective well-being [24]. While objective social indicators

are statistics which represent social facts independent of personal evaluations, subjective social indicators are measure of individual perceptions and evaluations of social conditions. Today, the overall consensus of opinion is to base welfare measurement on both subjective and objective indicators. This makes sense because similar living conditions can be evaluated differently by people with different backgrounds and experiences. It is however of major interest how subjective and objective assessments of a person's living condition may differ substantially [19].

The empirical study of quality of life is more than an intellectual exercise. The significance of this effort becomes obvious when we understand that findings in social indicator and subjective well-being research have direct relevance to the fundamental concerns of societies and individuals. For instance, to determine whether the quality of a society is improving or deteriorating, it is imperative to gain empirical evidence that is based on more than intuitions. Particularly, at a time when industrialization is transforming the lifestyles and values of every society on earth, scientific knowledge regarding human well-being is vital in determining whether material affluence should be the dominant concern in attaining a desirable quality of life. In addition to informing policy, subjective and social indicators can also assist individuals in their everyday life decisions, such as where and how to live.

Social and subjective indicators are based on different definitions of quality of life.

Social indicators are societal measures that reflect people's objective circumstances in a given cultural or geographic unit. The hallmark of social indicators is that they are based on objective, quantitative statistics rather than on individuals' subjective perceptions of their social environment. Indices derived from areas such as ecology, human rights, welfare, and education also have been sampled frequently as social indicators.

A possible objection to social indicators is that wealth accounts for so much variance in them, that they are not needed. For example, Diener and Diener [6] reports correlations between the wealth of nations and social indicators that are often so high that one might wonder whether we should bother with the indicators when wealth may account for much of the quality of life of nations.

Compare Israel with Tunisia, which has less than half of the income of Israel and yet achieves approximately the same quality of life on the social indicator index. Similarly, one can compare Spain and Mauritius, two nations with similar incomes. Note that Spain is one-half of a standard deviation above average in quality of life, whereas Mauritius is an equal distance below average. If we argue that economic indicators are sufficient, the people of Mauritius would likely object. If we argue that we do not need economic indicators because we ought to measure social indicators that more directly reflect quality of life, the people of Tunisia are likely to protest. Even with a correlation between the two types of measures that is virtually unheard of in the social sciences, the two are not equivalent, and each gives us valuable information not contained in the other indicator. Thus, strong correlations between economic indices and social indicators does not suggest that the latter are not needed. Quite the contrary, one value of social indicators is that they contain information beyond that which is contained in economic measures. At the same time, it is clear that wealth can provide an important first approximation to the material quality of life in nations.

People's material conditions, standard of living and wellbeing strongly depend on the economic wealth of the country in which they live, particularly on the level of national income and the way it has been allocated and

distributed. Macroeconomic output measured by the level of gross domestic product (GDP) per capita or head of population and expressed in terms of purchasing power standard (PPS) allows for comparative analysis of the capacities of individual countries to generate income.

Many individual and household characteristics are related to the level of people's income. Employment status, education level, health status, age, gender, family size and composition are all relevant factors. So, unemployed people in the European Union (EU) have equivalised household income amounting to only about half of that of employed and self-employed persons.

Less education is also associated with a lower level of equivalised income and this is found for all countries in the survey. In the EU, people with less than an upper level of secondary education have a household income amounting to about two-thirds of the income of those who have completed at least an upper secondary education. The European Quality of Life Survey (EQLS) data show that health status might have an impact on the level of income. In the EU, respondents reporting very poor or poor health have a household income that is about 35% lower than the income of people reporting very good or good health.

Next to unemployment and poor health, losing a partner due to divorce or death is also associated with lower income. According to EQLS data, people who are widowed or divorced have on average about 20% less income than those who are married or live with a partner. But in Turkey, the group comprising those who are separated, divorced or widowed is found to have a somewhat higher income than people who are married or living with a partner.

Speaking about strengths and weaknesses of social indicators, it should be noted that one of most important strength of social indicators is objectivity. These indicators usually can be relatively easily defined and quantified without relying heavily on individual perceptions. As a result, it is technically convenient to make comparisons of social indicators across nations, regions, demographic sectors, and time. Note that "objectivity" can have several different meanings in this context. It can mean that there is widespread agreement about the value of what is being measured. For example, virtually everyone in modern nations may agree that infant mortality is bad and that literacy is good. "Objectivity" may also mean that the characteristic can be measured with great precision, and with little measurement error. Infant mortality is something that can be consensual defined and accurately measured. Finally, social indicators can be "objective" in that they do not depend on people's perceptions, but can be measured in the same way by trained people and in a fashion that is relatively independent of people's opinions.

Another strength of social indicators is that they often reflect the normative ideals of a society. People are likely to value an absence of crime and clean air, for example. Furthermore, people may value these things regardless of whether they influence happiness. Thus, social indicators can assess societal qualities that do not rest solely on their influence on subjective well-being.

Another strong point of social indicators is that by including measures across various life domains, they are able to capture important aspects of society that are not sufficiently reflected in purely economic yardsticks. Thus, social indicators can capture important qualities of the society that are not adequately assessed by either subjective well-being measures or economic indices.

Social indicators, however, also suffer from several weaknesses. First, social indicators are fallible. It is more difficult to measure infant mortality in nations where most infants are born at home. In nations where birth records are

inadequate, it is difficult to determine longevity. Thus, although social indicators are thought to be "objective," they are often contaminated by measurement problems.

Even when something can be measured objectively, many considerations must enter into interpreting the numbers.

Another limitation of social indicators is the inevitable role of subjective decisions in selecting and measuring the variables.

Another weakness of current social indicators is that the variables are usually selected in an ad hoc fashion, constantly creating controversies among researchers.

Another important methodological issue is whether to use a general index (combination of indicators) of quality of life, or to use the individual indicators separately. When indicators are combined, the general index gains simplicity and breadth at the cost of more detailed information. If we use a global index such as Diener's QOL Index [8] to assess the quality of life of nations, we may overlook important differences on specific social indicators. The use of multiple indices, on the other hand, allows the researcher to observe one's object of interest from multiple angles but does not allow a parsimonious understanding of the data.

The basic premise of SWB research is that in order to understand the well-being of an individual, it is important to directly measure the individual's cognitive and affective reactions to her or his whole life, as well as to specific domains of life.

Subjective well-being consists of three interrelated components: life satisfaction, pleasant affect, and unpleasant affect. Affect refers to pleasant and unpleasant moods and emotions, whereas life satisfaction refers to a cognitive sense of satisfaction with life. Both affect and reported satisfaction judgments represent people's evaluations of their lives and circumstances. Based on numerous findings that uncover a relative independence between pleasant and unpleasant affect [7], SWB includes both positive and negative affective experiences of the individual. In contrast to the traditional clinical models of mental health, subjective well-being does not simply refer to an absence of negative experiences. High SWB, also includes the presence of positive affect, and satisfaction with life and domains of life such as work and leisure. Because an individual or a society that is high on one of the SWB factors can still be low on the others, all three of the separable components should be assessed.

As the term indicates, subjective well-being is primarily concerned with the respondents' own internal judgment of well-being, rather than what policy makers, academics, or others consider important. In economics, consumers' choices are used as measure of utility that is based on the individual's behavior rather than on the judgments of experts. In SWB, the concept that is analogous to utility based on choice in economics is experience – how people internally react to and experience the events and situations in their lives.

The central elements of well-being, a sense of satisfaction with one's life and positive affective experiences, are derived from the context of one's most important values and goals. If people value altruism or hard work, these are the behaviors that are likely to bring them a feeling of long-term satisfaction. Subjective well-being is most likely to be experienced when people work for and make progress towards personal goals that derive from their important values.

For example, in Eurofound surveys, two different sets of questions address the issue of work-life balance. In the European Working Conditions Survey (EWCS), the work-life balance question asks respondents if working hours fit in with family or social commitments outside work, and over

80% of the workers reply that they are satisfied with the fit. Despite the fact that women continue to be disproportionately more involved in unpaid domestic and caring activities, men report slightly more dissatisfaction with work-life balance. One probable explanation is the volume of working hours and the way these hours are organized between men and women, with women often opting for predictable working hours and/or part-time work.

The EQLS approaches work-life balance from a slightly different angle, through a threefold question concerning the following elements: how often the respondent has come home from work too tired to do some of the household jobs which need to be done; how often it has been difficult for the respondent to fulfil family responsibilities because of the amount of time spent on the job; and how often they have found it difficult to concentrate at work because of family responsibilities. This approach widens the scope of work-life balance to include not only working time but also other aspects of work that might cause tiredness and thus affect family life. Furthermore, it is possible to look not only at the impact of work on private life but also the other way around – at the impact of family responsibilities on work.

Most people in employment spend a considerable number of hours at work; therefore, difficulties in reconciling work and private life are commonplace. Work-life balance for men and women is indeed an important element of quality of life. Half of the workers in the EU indicate that after work they are sometimes too tired to do the household chores, while for almost a quarter of workers, this happens several times a week.

Considering the employment situation and working time arrangements of men and women, it is clear that women in particular adapt their professional choices to their personal circumstances. Women often have to choose between having children or a career due to lack of flexible work arrangements and care services, gender stereotypes and an unequal share of family responsibilities.

In general, women more often choose to work part time and men more often work long hours. Eurofound's surveys show that people working a higher number of paid hours cite more problems regarding work-life balance compared with those who work fewer hours.

Family contacts are extensive for most people, although frequent contact with friends is reported by an even higher proportion of people in most age groups. Among people who have children or parents living outside their household, a majority report face-to-face contact with one or more of them at least once a week.

In answering questions about satisfaction with aspects of life, people tend to give rather positive responses to general questions but are less satisfied when asked about more specific details. Thus, on a scale from 1 (very dissatisfied) to 10 (very satisfied), average scores for family life and social life are rather high. People may also be less inclined to declare dissatisfaction with more personal aspects of life over which they feel responsible.

With regard to family life, the highest satisfaction is expressed by people in the Nordic countries and those in Cyprus, Luxembourg and Malta. In general, men and women express rather similar levels of satisfaction, although scores for women in the NMS12 and specifically in the Baltic States are lower than for men. The most striking and consistent association is between income and satisfaction with family life: people with a higher income are happier with their family life. In relation to family characteristics, the highest satisfaction with family life is reported by couples (with and without children); single parents – particularly those with children aged under 16 years – are less satisfied.

Satisfaction with social life tends to be rated highly less consistently than satisfaction with family life. Satisfaction with social life may reflect not only having family and friends, but also having the resources, opportunities and facilities for socialising.

Despite the impression that "subjective" connotes lesser scientific credibility, SWB measures possess adequate validity.

The major advantage of subjective well-being measures is that they capture experiences that are important to the individual. Because most objective social indicators are indirect measures of how people feel about their life conditions, SWB measures provide an important additional assessment that can be used to evaluate the evidence summarized by objective indicators. If objective and subjective indicators converge, the researcher can make more definitive conclusions about quality of life. Where objective and subjective measures diverge, a deeper analysis of the meaning of the indicators is required.

Another strength of subjective well-being measures is that when proven inadequate, they are often easier to modify in later studies than objective indicators, which are usually compiled by sources (e.g., governments) beyond the reach of most investigators. Third, by measuring the experience of well-being on a common dimension such as degree of satisfaction, SWB measures can more easily be compared across domains than can objective measures that usually involve different units of measurement (e.g., degree of pollution, calories, and income). Thus, it is theoretically possible to create a valid national indicator of SWB that can be used in international comparisons. Such an indicator has the advantage of summing across the diverse factors that influence people's lives.

Subjective well-being measures also have a number of weaknesses. Subjective well-being measures may not fully reflect the objective quality of community life in a locale because they may be more dependent on temperament and personal relationships than on societal factors. Also, because people naturally adapt to situations, social expectations may influence individuals' SWB. For example, poor economic conditions may be perceived less negatively if experts remind citizens about the nation's economic improvement from the past instead of focusing on the problems of the current economy. Thus, SWB findings are important, but are insufficient by themselves for evaluating a society.

Finally, it is important to realize that subjective well-being is a value that varies in importance across individuals and nations. Societies and individuals differ in the degree to which they believe that SWB is a key attribute of the good life. If happiness is only one among many values, other core values of the society must also be represented in the criteria by which that society is evaluated.

Although material wealth is often prescribed as the shortest road to attaining happiness, Diener et al. [7] found that 37 percent of the wealthiest Americans were less happy than the average American. In fact, people who aspire to gain material success and fame suffer more from depression and anxiety than others.

A classic example of the problems of objective and subjective factors, aggregate and individual characteristics and different reference standards is offered by Easterlin [11]. He found that rising levels of income do not produce increases in the average subjective estimate of welfare. From studies in 19 countries he reports that "in all societies, more money for the individual typically means more individual happiness. However, raising the incomes of all does not increase the happiness of all. Individuals assess their material well-being, not in terms of the

absolute amount of goods they have, but relative to a social norm of what goods they ought to have.

Social indicators and subjective well-being measures are complementary. Subjective well-being measures assess people's actual reactions that are involved in such a transactional process. What is good for people cannot be determined without taking their views into account. Measures that are based on objective standards, however, are also needed to judge the conditions of a society because people can be tolerably happy even in many undesirable circumstances.

The parallel use of social indicator and subjective well-being measures is important for a methodological reason as well. Because neither set of measures is exhaustive, and the fact that each captures a different aspect of societal well-being, we are well-advised to retain and emphasize the importance of both to policy makers.

Although social indicators and subjective well-being do correlate across societies, each type of measure yields additional information about the quality of life of societies.

Despite the foregoing discussion, it should be noted that the social indicators and subjective well-being measures are not so clearly distinct as they first appear. The "objective" or external social indicators are replete with subjective decisions – from decisions of those who compile the data (police, doctors, etcetera) to the determination by the researcher to include or exclude specific variables. The objective indicators that researchers collect also inevitably reflect the subjective concerns of the society. The positivistic idea that we can obtain objective measures that are totally value-free is illusory.

On the other hand, subjective measures may be more objective than is sometimes assumed. For instance, there are observable reactions that accompany SWB. Happy people talk and think more about positive things, have greater left frontal brain activity, can recall more positive than negative events from their lives, have lower absenteeism from work, and smile more. Therefore, although self-report measures of subjective well-being are subject to biases, they can be complemented with other non self-report indicators of well-being. Thus, subjective indicators are perhaps less subjective than they at first appear, and objective indicators contain subjective elements.

Eventually, at a more advanced level of understanding, we will be able to measure people's subjective reactions and understand how they are related to external conditions. For example, what are the objective work conditions that covary with job satisfaction? To gain a full understanding of quality of life, we need to explore not only the external and internal aspects of well being, but also the transactional and reciprocal influences between the two. Ultimately, we can comprehend quality of life fully only if we understand the interplay between social indicators in a society, and the subjective reactions of the citizens of that society.

Conclusion & Discussion. Scientists offered several alternative approaches to defining and measuring quality of life: social indicators such as health and levels of crime, subjective well-being measures (assessing people's evaluative reactions to their lives and societies), and economic indices. Economic, subjective and social indices can all shed light on a society's quality of life, as well as on how specific factors influence well-being. Thus, the social indicators perspective, subjective well-being measurement, and the economic approach can each tell us interesting and different things about the causes, consequences, and experience of unemployment.

The next important finding is the large differences in subjective well-being across social groups. In general, subjective well-being is much higher for people

characterised by good health and higher income, labour market position and level of education than for those who are disadvantaged in these aspects.

Quality of life is a complex, multifaceted construct that requires multiple approaches from different theoretical angles. We have argued that social indicators, subjective well-being measures, and economic indices are needed in unison to understand human quality of life, and to make informed policy decisions. Although the various measures each have a number of strengths and weaknesses, they are methodologically and conceptually complementary. We encourage scientists from the various disciplines of social science to exploit the strengths of other's contributions in a collaborative effort. Instead of turf battles over who has the best indicator, each discipline needs to borrow insights about quality of life from the other fields. A thorough understanding of subjective well-being requires knowledge of how objective conditions influence people's evaluations of their lives. Similarly, a complete understanding of objective indicators and how to select them requires that we understand people's values, and have knowledge about how objective indicators influence people's experience of well-being.

So, using both objective and subjective measures will allow us to provide a complete picture of life quality, as opposed to preferring one measure over another.

This article is a continuation of the works of author connected with definition the essence of life quality, concepts and research methods of evaluating quality of life. Objective and subjective indicators that can be used to assess quality of life are analyzed. Also analyzed the strengths and weaknesses of indicators.

The study concluded that the method of evaluating the quality of life must include both objective and subjective indicators. First of all, using both objective and subjective indicators allow us to provide a complete picture of the quality of life. Second, the joint use of objective and subjective indicators may provide additional information and alternative view not solely about the quality of life of an individual but also about the societal quality. Third, a truly comprehensive assessment of quality of life can be accomplished solely by including objective and subjective indicators onto the measurement system.

Ukrainian scientists measure quality of life by using the Human Development Index that consists of life expectancy, education, and income indices. But this approach is limited and does not provide the required results.

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I. Романюк, асп.

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СИСТЕМА ОБ'ЄКТИВНИХ ТА СУБ'ЄКТИВНИХ СТАТИСТИЧНИХ ПОКАЗНИКІВ ВИМІРЮВАННЯ ЯКОСТІ ЖИТТЯ

У статті розглядаються підходи до визначення і виміру якості життя. Кожен підхід до вимірювання якості життя містить інформацію, яка не міститься в інших. Дослідженні економічні, суб'єктивні та соціальні показники. Також проаналізовано сильні та слабкі сторони цих показників.

Ключові слова: індекс якості життя; об'єктивні індикатори; суб'єктивні індикатори; якість життя; вимірювання якості життя.

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В данной статье рассматриваются подходы к определению и измерению качества жизни. Каждый подход к измерению качества жизни содержит информацию, которая не содержится в других. Исследованы экономические, субъективные и социальные показатели. Также проанализированы сильные и слабые стороны этих показателей.

Ключевые слова: индекс качества жизни; объективные показатели; субъективные показатели; качество жизни; измерение качества жизни.

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Надійшла до редколегії 10.03.15